REMARKS

Applicants reply to the Final Office Action dated December 26, 2006 with a one-month Extension of Time and Request for Continued Examination. Claims 1, 3-6, 8 and 9 were pending in the application and the Examiner rejects claims 1, 3-6, 8 and 9. Support for the amendments may be found in the originally-filed specification, claims, and figures. No new matter has been introduced by these amendments. Reconsideration of this application is respectfully requested.

The Examiner rejects claims 1, 3-6, 8, and 9 under 35 USC § 103(a) as being obvious over Angelo et al., U.S. Patent No. 5,923,754 ("Angelo"), in view of Venkatesan et al., U.S. Patent No. 6,801,999 ("Venkatesan"), and further in view of Sims, U.S. Publication No. US 2002/0016919 ("Sims"). Applicant respectfully traverses this rejection. The Examiner rejects claims 1, 3-6, 8, and 9 under 35 USC § 103(a) as being obvious over Angelo, in view of Venkatesan, in view of Sims, and further in view of Applicant's Admitted Prior Art. Applicant respectfully traverses this rejection.

As an initial matter, Applicants respectfully assert that the Examiner is misinterpreting "initial state". Based on the specification, Applicants assert that "initial state" is clear. However, to expedite prosecution, Applicants amend claims 1 and 6 to further define the elements associated with "initial state" by referring to a register of the determination section (i.e., state transition section **111**, which functions as a determination section as disclosed on page 11, lines 26-30 of the original English-language specification; also see, e.g., Figure 3), said register (e.g., register **1301** of Figure 3 of the original English-language specification) storing a value of the content-key storage section **107** when said register receives a Power On Reset (POR) signal. The POR signal is a signal which pulses only once immediately after power-on or reset (see, e.g., Figure 3, and page 15, line 20 to page 17, line 9 of the original English-language specification).

Support for the amendments to claims 1 and 6 can be found, e.g., in Figure 3, and on page 15, line 20 to page 17, line 9 of the original English-language specification.

Applicants also assert that the period of time immediately after power-on or reset represents the period of the start-up cycle for the device (i.e., "initial state"), said period being defined as after POR signal is pulsed, as one skilled in the art will appreciate. Moreover, an important feature of the present invention is to store a value of the content-key at such a start-up time, then compare with the content-key value during a current state, and if different then decrypt.

More specifically, in the present Office Action, the Examiner asserts that "when compared to a current state, any state previous to the current state can be considered an initial state". The Examiner further contends that "if the state of the content key storage section after it was turned on or reset is different than a later state, i.e., a current state or future state, the state of the content key storage section can be considered an initial state as compared to the later state". The Examiner further notes that "in referring to 'an initial state immediately after at least one of a power-on of the decryption device and the decryption device is reset', the claim implies that there can be more than one state that is considered 'an initial state'''. (See the Examiner's Response to Arguments on pages 2-3 of the present Office Action.)

Furthermore, in the last paragraph on page 5 of the Office Action, the Examiner states that "applicant's specification does not explicitly define what is the 'initial state'. The Examiner submits that in the broadest, reasonable sense, any state of the content-key storage section can be considered the 'initial state' as compared to a later point in time. The Examiner assumes the state of the storage section that is most recent in time is the "current state" and any state prior to the most recent as an 'initial state' including the state immediately after at least one of a power-on of the decryption device and the decryption device is reset".

Applicants respectfully disagree, and in particular, Applicants note that in the present specification, exemplary definitions of the "initial state" are provided as follows:

(1) "... a value of the memory region [i.e., content-key stored in said memory region] is believed to be always the same when the encryption/decryption device is in the initial state e.g., immediately after the encryption/decryption device is powered-on ..." (see, e.g., page 3, line 26 to page 4, line 1 of the original English-language specification);

(2) "In the present specification, the value of the memory region in the encryption/decryption device, which is provided for storing a content-key when the encryption/decryption device is in the initial state, e.g., immediately after the encryption/decryption device is powered-on, is referred to as an 'initial content-key'" (see, e.g., page 4, lines 3-9 of the original English-language specification);

(3) "The latch input **1305** of the register **1301** receives a POR (Power On Reset) signal. The POR signal is a signal which pulses only once immediately after power-on. A power supply used for the power-on may be, for example, a power supply for the decryption device **101** or a power supply for a reproduction/recording apparatus (not shown) on which the decryption device

101 is mounted. After the power-on, a value of the content-key storage section **107** immediately after the power-on is held in the register **1301** ..." (see, e.g., please 16, lines 2-10 of the original English-language specification);

(4) "In this way, the state transition management section **111** can determine whether or not the value of the content-key storage section **107** in its initial state and a current value of the content-key storage section **107** are different. In the above example, the initial state is a state immediately after the power-on, but according to the present invention, the initial state is not limited thereto. For example, the initial state may be a state immediately after the whole decryption device **101** is reset" (please see, e.g., page 16, lines 19-27 of the original English-language specification); and

(5) "A pulse signal is input to the latch input **1305** of the state transition management section **111** immediately after any initial state, whereby the state transition management section **111** can determine whether or not the value of the content-key storage section **107** in its initial state and a current value of the content-key storage section **107** are different" (please see, e.g., page 16, line 27 to page 17, line 1 of the original English-language specification).

In other words, Applicants assert that, for the present invention, when either a power-on or reset occurs, a Power On Reset (POR) signal is immediately pulsed by the power supply of the decryption device **101** or the power supply for a reproduction/recording apparatus (not shown in the Figures) on which the decryption device **101** is mounted. Applicants note that, as the name suggests, a "Power On Reset" signal refers to a signal for "Power On" and a signal for "Reset". In both cases, this POR signal causes the register **1301** to store the value of the content-key storage section **107** at the time that said register **1301** receives said POR signal. Hence, there are two cases or instances which cause the POR signal to be pulsed. However, after the POR signal is pulsed, there is only <u>one</u> "initial state" value of the content-key (i.e., the content-key that is stored in the content-key storage section **107** at the time that the POR signal is pulsed).

Therefore, contrary to the Examiner's assertion that "there can be more than one state that is considered 'an initial state", Applicants assert that there is more than one way in which the device can be initialized so as to result in the <u>only one</u> "initial state", which according to the aforementioned disclosure, is immediately after the POR signal is pulsed.

Furthermore, Applicants assert that one skilled in the art will easily appreciate that, when a power supply is turned on or reset (e.g, in the case of a PC) settings are initialized. For example,

when a Windows PC is turned on (i.e., "booted") or reset (i.e., "rebooted"), Windows is initialized (i.e., a "start-up" cycle or process occurs). By analogy to the present invention, when either the decryption device (or the reproduction/recording apparatus having the decryption device mounted thereon) is turned on or reset, the settings for the decryption device are initialized (i.e., which occurs after the POR signal is pulsed by the act of turning on or resetting the device). In other words, initialization (to the "initial state") occurs by either turn-on or reset.

Applicants amend claims 1 and 6 to expedite prosecution and to further define the "initial state" as disclosed in the present specification (as discussed above). Applicants assert that amended claims 1 and 6 similarly require at least the following features:

(a) "wherein the determination section comprises a register for storing a value of the content-key storage section at the time that said register receives a Power On Reset (POR) signal"; and

(b) "wherein the POR signal is a signal which pulses only once immediately after power-on or immediately after reset, so that the content key storage section is in an initial state immediately after a corresponding power-on or reset of the decryption device".

As admitted by the Examiner, (i) Angelo does not disclose a determination section adapted to determine whether or not a value of the content-key storage section in its initial state and a current value of the content-key storage section are different, and (ii) Angelo does not disclose the decryption of the encrypted content also being dependent on the determination section determining that the value of the content-key storage section in its initial state and the current value of the content-key are different (see the 2nd paragraph on page 5 of the present Office Action).

Applicants agree with the Examiner's statement (the 3rd paragraph on page 5 of the present Office Action) that the state of the storage section that is most recent in time is the "current state"; however, Applicants disagree with the Examiner's statement that any state prior to the most recent is an "initial state". As discussed above, and as reflected in the amended claims, **the "initial state" is defined as the state immediately after a POR signal is pulsed by the power supply of either the decryption device or the power supply of the reproduction/recording apparatus on which the decryption device is mounted.**

Neither Venkatesan nor Sims disclose or teach that the determination section (particularly, a register therein) stores the value of the content-key storage section at the time that said register

receives a Power On Reset (POR) signal, or that the POR signal is a signal which pulses only once immediately after a corresponding power-on or reset of the decryption device.

Furthermore, in Venkatesan, for example, it is disclosed that "For a relatively long period of time, old and new watermark keys will co-exist *to enable other objects watermarked with the old key to be accessed and used*" (emphasis added; see, e.g., col. 7, lines 42-45 of Venkatesan).

Applicants submit that in a relatively long period of time, the power supply of a decryption device or the power supply of a reproduction/recording apparatus having a decryption device mounted thereon (e.g., power supply of a PC) would likely have been turned off and on a plurality of times. It follows that if the power supply has been turned off and turned on for a plurality of times, then the POR signal from the power supply would have pulsed a plurality of times.

Regardless, in Venkatesan, there is no disclosure or suggestion that the "old" watermark is stored when a POR signal is pulsed, and hence the "old" watermark cannot be compared with the current watermark.

Furthermore, Venkatesan does not disclose or suggest comparing the "old" watermark with the current watermark, and only when the "old" watermark is different from the current watermark, then decrypting (or encrypting) data. Moreover, Venkatesan does not disclose or suggest a POR signal or that the watermark is somehow associated with power-on or reset.

Applicants also assert that, in the present invention, if the "current state" content-key is the same as the "initial state" content-key, then the encrypted content cannot be accessed. However, in the aforementioned disclosure in Venkatesan, the old and new watermarked keys will co-exist to enable other objects watermarked with the old key to be accessed and used. In other words, both "old" and "new" watermarked keys can access the data at the same time, whereas in the present invention only the "current state" content-key that is different from the "initial state" content-key can access the encrypted content.

Furthermore, Venkatesan discloses that "Watermark keys routinely expire after a given interval of time ..." (see, e.g., col. 7, lines 49-59 of Venkatesan). However, as discussed above, Venkatesan does not disclose or suggest power-on or reset or a POR signal (resulting from power-on or reset). Therefore, Venkatesan does not disclose at least the features related to the content-key of the "initial state" as defined in features (a) and (b) above.

Moreover, Applicants assert that Venkatesan requires that the watermark match the watermark key of the enforcer for the object to be accessed, which is different from accessing the

content when the "current state" content-key is different (i.e., does not match) the "initial state" content-key.

In Sims, although paragraphs [0108] and [0109] (as indicated by the Examiner) seem to imply that access to data is allowed when the current key does not match (i.e., is different from) the "revoked" or "disallowed" keys, Sims is silent on the features of "initialization", "power-on" "reset" and "POR signal" related to "power-on", "reset", and the content-key when such a "POR signal" is pulsed. Applicants also assert that Sims requires several steps of comparison due to the list of (i.e., more than one) "revoked" or "disallowed" keys with the current key. The presently claimed invention only requires that the current content-key not match the "initial state" content-key (i.e., the content-key that is stored in the content-key storage section at the time that a POR signal is pulsed). Accordingly, Applicants assert that the presently claimed invention allows for simplification and hence simple hardware implementation of the comparison.

Moreover, as indicated in Applicants' previous arguments, none of the cited references seem to disclose or suggest (either alone or in combination) the problem of the present invention, which is to prevent a value within the content key section (i.e., "initial state" content-key value) from being used fraudulently in decrypting content. As such, none of the cited references would be concerned with the solution to such a problem.

As such, Applicants assert that neither Angelo, Venkatesan, Sims, Applicant's Admitted Prior Art, nor any combination thereof, disclose or suggest at least "wherein the determination section comprises a register for storing a value of the content-key storage section at the time that said register receives a Power On Reset (POR) signal", or "wherein the POR signal is a signal which pulses only once immediately after power-on or immediately after reset, so that the content key storage section is in an initial state immediately after a corresponding power-on or reset of the decryption device," as similarly required by independent claims 1 and 6.

Claims 3-5, 8 and 9 variously depend from independent claims 1 and 6, so Applicants assert that claims 3-5, 8 and 9 are differentiated from the cited references for the same reasons as set forth above, in addition to their own respective features.

Applicants submit that the application is now in condition for examination on the merits. Early notification of such action is earnestly solicited. Should the Examiner have any suggestions to place the application in even better condition for allowance, Applicants request that the Examiner contact the undersigned representative at the telephone number listed below. No new matter is

added in this Response. Reconsideration of the application is thus requested. The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. **19-2814**.

Respectfully submitted,

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By: _____
Howard I. Sobelman
Reg. No. 39,038

SNELL & WILMER L.L.P.
400 E. Van Buren
One Arizona Center
Phoenix, Arizona 85004
Phone: 602-382-6228
Fax: 602-382-6070
Email: hsobelman@swlaw.com